

## **I. AMENDMENTS TO THE SPECIFICATION**

*Please amend paragraph 0003 as follows:*

[0003] An optical fiber is generally manufactured as follows. There is called as VAD method in which a porous base material is obtained such that particles of  $\text{SiO}_2$  made from material gas, for instance [SiO4]  $\text{SiO}_4$ , subjected to hydrolysis with oxyhydrogen flame are deposited on an initial material being moving up while rotating. In another called OVD method, a porous base material is obtained much that particles of  $\text{SiO}_2$  made from material gas, for instance  $\text{SiO}_4$ , subjected to hydrolysis with oxyhydrogen flame from a burner movable relatively to an initial material are deposited on the initial material being rotating. Still further, there is called as MCVD method in which a material gas flows into a cladding material of a quartz tubes or the like and the gas is subjected to reaction and deposition therein. Then, while a hanging mechanism is hanging the base material thus obtained, the base material is subjected to heating and dehydrating to vitrify, so that a preform for an optical fiber is manufactured. Finally, an optical fiber is obtained by drawing the preform thus manufactured.

*Please amend paragraph 00171 as follows:*

[00171] The inventors of the present invention have found that, in the sintering process to a base material, an end portion of the base material is moved to a position near the heating zone, and then it is maintained at the position for a prescribed period from the time when the heating zone of the reactor reaches a sintering temperature, preferable numerical values of the prescribed period, i.e. the elapsed time  $T$  depend on the minor diameter, the length and the volume of the reactor, and the major diameter of the base material and the length of the large diameter portion of the base material. More specifically, the elapsed time  $T$  is determined to satisfy the following formula:  $[T = \pi (R^2 L - r^2 l)/4Q]$   $T \geq \pi (R^2 L - r^2 l)/4Q$ , so that problems which are likely to arise during sintering are solved.